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EXAMINER	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/784,167	NAKAGAWA, KUNIHIRO	
	Examiner	Art Unit	
	ASHISH K. THOMAS	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 October 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 5, 6, 8, 10, 12, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aihara(U.S. 2004/0066969) in view of Tsukuba(U.S. 2003/0197882) .

Regarding claim 1, Aihara discloses an image forming apparatus comprising: a page memory(**The storage unit stated in paragraph 39 reads on this page memory**) to store image data for every page; image rotating means for rotating the image data stored in the page memory at a specified angle(**Paragraph 44 describes a rotation unit 117**); image correction means for correcting pixels of which positional relationship was changed from that before rotation as a result of the rotation of the image data by the image rotating means to come near to the positional relationship before the rotation; (**Paragraph 82 describes a method that compares the pre-rotation and post-rotation data. If there are differences in the post-rotation data, then appropriate**

corrections are made.) and image forming means for forming images on the sheet based on the image data of which the positional relationship of pixels was corrected by the image correction means. (**Figure 1 illustrates an image output device 400.**)

But Aihara is silent on a means for determining a direction of a document data whether the document data direction is a vertical long or horizontally long; means for determining a direction of a sheet contained in a sheet cassette whether the sheet direction is a vertical long or horizontally long; and image rotating means for rotating the image data when the document data direction disagrees with the sheet direction.

Tsukuba, on the other hand, teaches a means for determining a direction of a document data whether the document data direction is a vertical long or horizontally long(**Paragraph 19 teaches the ability to detect a mismatch in the orientation of the image data and the orientation of the print sheet. This, in turn, inherently teaches the means for determining a direction of the document data.**); means for determining a direction of a sheet contained in a sheet cassette whether the sheet direction is a vertical long or horizontally long(**Paragraph 19 teaches an orientation detection unit that determines the orientation of the print sheet.**); and image rotating means for rotating the image data when the document data direction disagrees with the sheet direction(**Paragraph 19 teaches a rotation-angle selection unit that is used when there is a mismatch in the orientation of the image data and the orientation of the print sheet.**).

Therefore, it would have been obvious for one of ordinary skill in the art, at the time of the present invention, to modify Aihara with Tsukaba to put forth the apparatus claimed in claim 1.

The motivation simply can be to put forth a method that increases the number of successful outputs. The probability of failed print jobs is reduced, in that a method that corrects sheet mismatches are realized.

Regarding claim 6, it is rejected in the same manner as claim 1. Note that claim 6 is a method claim that corresponds to apparatus claimed in claim 1.

Regarding claim 10, it is rejected in the same manner as claim 1. Claim 10 differs from claim 1, in that it mentions an image processor and a print engine. But note that the image processor and print engine mentioned in claim 10 serves the same function as the image correction means and image forming means stated in claim 1.

Regarding claim 5, Aihara teaches an image forming apparatus comprising: a page memory to store image data for every page; (**The storage unit stated in paragraph 39 reads on this page memory**) image rotating means for rotating the image data stored in the page memory at a specified angle; (**Paragraph 44 describes a rotation unit 117**) first pattern holding means for regarding pixels required for correction as rotation-subject pixels when the image rotation means rotates the image data and for holding first image pixel data that are corrected with respect to a matrix pixel array pattern including the rotation subject pixels as noteworthy pixels; (**Paragraph 82 describes a method that compares the pre-rotation and post-rotation data. If there are differences in the post-rotation data, then appropriate corrections are**

made. The Examiner is equating the mean to hold the pattern to a mere storage, and such a storage is inherently taught in the reference. Otherwise, the comparison and correction step stated in the Aihara is not possible. Also note that that the original pixel data reads on the noteworthy pixels stated in the claim language.) second pattern holding means for regarding pixels required for correction as non-rotation subject pixels when the image rotation means does not rotate the image data and for holding second image pixel data that are corrected with respect to a matrix pixel array pattern including the non-rotation subject pixels as noteworthy pixels; (**Figure 11 illustrates that only rotated area with positional defects are extracted. So, the non-extracted area reads on the second pattern. Once again, note that the original pixel data read on the noteworthy pixels.**) image correction means for replacing the first image pixel data with noteworthy pixels of the image data that are in consistent with the first image pixel data when the image rotation means rotates the image data stored in the page memory(**Paragraph 82 details the correction process that replaces the defective pixel positions.**) and for replacing the second image pixel data with noteworthy pixels of the image data that are in consistent with the second image pixel data when the image rotation means does not rotate the image data stored in the page memory(**Paragraph 90 and 91 teaches an output process for an area wherein there are no positional defects.**); and image forming means for forming an image based on the image data corrected by the image correction means. (**Figure 1 illustrates an image output device 400.**)

But Aihara is silent on a means for determining a direction of a document data whether the document data direction is a vertical long or horizontally long; means for determining a direction of a sheet contained in a sheet cassette whether the sheet direction is a vertical long or horizontally long; and image rotating means for rotating the image data when the document data direction disagrees with the sheet direction.

Tsukuba, on the other hand, teaches a means for determining a direction of a document data whether the document data direction is a vertical long or horizontally long(**Paragraph 19 teaches the ability to detect a mismatch in the orientation of the image data and the orientation of the print sheet. This, in turn, inherently teaches the means for determining a direction of the document data.**); means for determining a direction of a sheet contained in a sheet cassette whether the sheet direction is a vertical long or horizontally long(**Paragraph 19 teaches an orientation detection unit that determines the orientation of the print sheet.**); and image rotating means for rotating the image data when the document data direction disagrees with the sheet direction(**Paragraph 19 teaches a rotation-angle selection unit that is used when there is a mismatch in the orientation of the image data and the orientation of the print sheet.**).

Therefore, it would have been obvious for one of ordinary skill in the art, at the time of the present invention, to modify Aihara with Tsukaba to put forth the apparatus claimed in claim 5.

The motivation simply can be to put forth a method that increases the number of successful outputs. The probability of failed print jobs is reduced, in that a method that corrects sheet mismatches are realized.

Regarding claim 8, Aihara further discloses an image forming apparatus according to claim 6, wherein the correction step decides pixels of which positional relationship differ from that before the rotation when halftone processed image data was rotated as pixels subject to replacement and holds the pixel data of which positional relationship was correct for the matrix pixel array pattern including the subject pixels as noteworthy pixels. (**Paragraph 82 discloses a step that corrects rotated portion of an image when that portion doesn't match with the previously(pre-rotation) stored image. This ability to correct any defective rotated portions further implies the ability to keep track of the rotated portion, the corrected portions, and portions of the image that does not need correction. After all, without this ability, it would not be possible to make the corrections and output the image. Also, please note that the Examiner is equating the term noteworthy pixels, as stated in the claim language, to corrected pixels or portions of the image.**)

Regarding claim 12, Aihara further teaches the image forming apparatus according to claim 1, wherein the image correction means includes corrected pattern holding means for regarding pixels requiring correction as replacing subject pixels when the image rotating means rotates the image data and holding the image data after correcting a matrix pixel array pattern including the replacing subject pixels as noteworthy pixels. (**Paragraph 82 describes a method that compares the pre-**

rotation and post-rotation data. If there are differences in the post-rotation data, then appropriate corrections are made. The Examiner is equating the pattern holding means to a mere storage, and such a storage is inherently taught in the reference. Otherwise, the comparison and correction step stated in the Aihara is not possible. Also note that that the original pixel data read on the noteworthy pixels stated in the claim language.)

Regarding claim 19, Tsukuba further teaches the image forming apparatus according to claim 1 wherein the image rotating means rotates the image data in a rightward or leftward 90 degrees. (**Paragraph 149 teaches rotating the image 90 degrees.**)

3. Claims 2, 3, 4, 7, 9, 11, 14, 15, 16, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aihara(U.S. 2004/0066969) in view of Cho(U.S. 2004/0114782) and further in view of Tsukuba(U.S. 2003/0197882).

Regarding claim 2, Aihara teaches an image forming apparatus comprising: a page memory to store image data for every page(**The storage unit stated in paragraph 39 reads on this page memory**); image rotating means for rotating the image data stored in the page memory at a specified angle; (**Paragraph 44 describes a rotation unit 117**) corrected pattern holding means for regarding pixels requiring correction as replacing subject pixels when the image rotating means rotates the image data and holding the image data after correcting a matrix pixel array pattern including the replacing subject pixels as noteworthy pixels; (**Paragraph 82 describes a method that compares the pre-rotation and post-rotation data. If there are differences in**

the post-rotation data, then appropriate corrections are made. The Examiner is equating the pattern holding means to a mere storage, and such a storage is inherently taught in the reference. Otherwise, the comparison and correction step stated in the Aihara is not possible. Also note that that the original pixel data read on the noteworthy pixels stated in the claim language.) image correcting means for correcting the replacing subject pixels with the pixel array pattern when the image data searching means detect the image data in accordance with the pixel array pattern; (**Paragraph 82**) and image forming means for forming an image based on the image data corrected by the image correcting means. (**Figure 1 illustrates an image output device 400.**)

However, Aihara fails to explicitly point out searching means for searching image data in accordance with the matrix pixel array pattern held by the corrected pattern holding means out of rotary processed image data by the image rotating means.

Cho, on the other hand, discloses a searching means for searching image data in accordance with the matrix pixel array pattern held by the corrected pattern holding means out of rotary processed image data by the image rotating means. (**Paragraph 21 discloses a method that matches vector characteristics with previously registered data. This matching step inherently teaches the searching means stated in the claim language. Note that the matching is not possible without indexing the currently stored image.**)

Therefore, it would have been obvious for one of ordinary skill in the art, at the time of the present invention, to modify Aihara with Cho to put forth the image forming

apparatus stated in claim 2 wherein a search algorithm searches for pixels to be corrected.

The motivation is to devise a step that successfully searches the coordinates of a stored pattern to seek out any abnormalities. This, in turn, would yield an efficient and accurate image processing apparatus. Also note that Aihara and Cho are combinable because both references deal with not only image processing, but they also deal with comparing currently stored patterns with previously stored patterns to detect any defects.

But Aihara and Cho are silent on a means for determining a direction of a document data whether the document data direction is a vertical long or horizontally long; means for determining a direction of a sheet contained in a sheet cassette whether the sheet direction is a vertical long or horizontally long; and image rotating means for rotating the image data when the document data direction disagrees with the sheet direction.

Tsukuba, on the other hand, teaches a means for determining a direction of a document data whether the document data direction is a vertical long or horizontally long(**Paragraph 19 teaches the ability to detect a mismatch in the orientation of the image data and the orientation of the print sheet. This, in turn, inherently teaches the means for determining a direction of the document data.**); means for determining a direction of a sheet contained in a sheet cassette whether the sheet direction is a vertical long or horizontally long(**Paragraph 19 teaches an orientation detection unit that determines the orientation of the print sheet.**); and image

rotating means for rotating the image data when the document data direction disagrees with the sheet direction(**Paragraph 19 teaches a rotation-angle selection unit that is used when there is a mismatch in the orientation of the image data and the orientation of the print sheet.**).

Therefore, it would have been obvious for one of ordinary skill in the art, at the time of the present invention, to modify Aihara and Cho with Tsukaba to put forth the apparatus claimed in claim 2.

The motivation simply can be to put forth a method that increases the number of successful outputs. The probability of failed print jobs is reduced, in that a method that corrects sheet mismatches are realized.

Regarding claim 7, it is rejected in the same manner as claim 2. Note that claim 7 is a method claim that corresponds to apparatus claimed in claim 2.

Regarding claim 3, Cho further teaches that the image forming apparatus wherein the noteworthy pixels are located at the central portion of the matrix pixel array pattern. (**Paragraph 34 details one method wherein the center coordinates are searched and processed.**)

Regarding claim 4 Aihara further discloses the image forming apparatus wherein the corrected pattern holding means makes pixels of which positional relationship differs from that before the rotating when halftone processed image data is rotated as pixels subject to replacement and holds corrected pixel data of which positional relationship was corrected for the matrix pixel array pattern including the replacing subject pixels as

noteworthy pixels. (**Paragraph 82 discloses a step that corrects rotated portion of an image when that portion doesn't match with the previously(pre-rotation) stored image. This ability to correct any defective rotated portions further implies the ability to keep track of the rotated portion, the corrected portions, and portions of the image that does not need correction. After all, without this ability, it would not be possible to make the corrections and output the image. Also, please note that the Examiner is equating the term noteworthy pixels, as stated in the claim language, to the original image data.**)

Regarding claim 9, Aihara teaches an image forming method comprising: a first holding step to regard pixels required for correction as rotation subject pixels when the image is rotated at a specified angle and for hold first image pixel data that are corrected with respect to a matrix pixel array pattern including the rotation subject pixels as noteworthy pixels; (**Paragraph 82 describes a method that compares the pre-rotation and post-rotation data. If there are differences in the post-rotation data, then appropriate corrections are made. The Examiner is equating the mean to hold the pattern to a mere storage, and such a storage is inherently taught in the reference. Otherwise, the comparison and correction step stated in the Aihara is not possible. Also note that that the original pixel data reads on the noteworthy pixels stated in the claim language.**) a second holding step to regard pixels required for correction as non-rotation subject pixels when the image data is not rotated and hold second image pixel data that are corrected with respect to a matrix pixel array pattern including the non-rotation subject pixels as noteworthy pixels; (**Figure 11 illustrates**

that only rotated area with positional defects are extracted. So, the non-extracted area reads on the non-rotation subject pixels. Once again, note that the original pixel data read on the noteworthy pixels.) a storing step to store image data for every page; (**The storage unit stated in paragraph 39 reads on this page memory**) a rotation step to rotate the stored image data at a specified angle; (**Paragraph 44 describes a rotation unit 117.**) a correction step to replace pixels conforming to the matrix pixel array pattern held in the first holding step when image data stored in the storing step is rotated and replaced in the rotation step and when not replaced by rotating, replace pixels at the data conforming to the matrix pixel array pattern held in the second holding step to the corrected matrix pixel data of the pixel array pattern, and a correction step to replace the first image pixel data with noteworthy pixels of the image data that are in consistent with the first image pixel data when the image rotation step rotates the image data stored in the storing step and to replace the second image pixel data with noteworthy pixels of the image data that are in consistent with the second image pixel data when the image is not rotated; (**Paragraph 82 details the correction process that replaces the defective pixel positions. Paragraph 90 and 91 teaches an output process for an area wherein there are no positional defects**) and a step to form an image based on the image data corrected in the correction step. (**Figure 1 illustrates an image output device 400.**)

But Aihara is silent on replacing pixels at the center of image data.

Cho, on the other hand, teaches replacing pixels at the center of image data(**Paragraph 34**).

Therefore, it would have been obvious for one of ordinary skill in the art, at the time of the present invention, to modify Aihara with Cho to put forth the image forming method stated in claim 9 wherein a pixel correction means is able to correct pixel at the center of the image data.

The motivation would be to derive a correction method that specifically deals with the center-portion of an image. For example, incorporating the Cho reference would be beneficial in correcting position defects in an image illustrating the iris of the human eye since it is usually located in the center portion of an image. Note that Aihara and Cho are combinable since both references discuss image correction methods.

But Aihara and Cho are silent on a step for determining a direction of a document data whether the document data direction is a vertical long or horizontally long; a step for determining a direction of a sheet contained in a sheet cassette whether the sheet direction is a vertical long or horizontally long; and image rotating step for rotating the image data when the document data direction disagrees with the sheet direction.

Tsukuba, on the other hand, teaches a step for determining a direction of a document data whether the document data direction is a vertical long or horizontally long(**Paragraph 19 teaches the ability to detect a mismatch in the orientation of the image data and the orientation of the print sheet. This, in turn, inherently teaches the means for determining a direction of the document data.**); step for determining a direction of a sheet contained in a sheet cassette whether the sheet direction is a vertical long or horizontally long(**Paragraph 19 teaches an orientation detection unit that determines the orientation of the print sheet.**); and image

rotating step for rotating the image data when the document data direction disagrees with the sheet direction(**Paragraph 19 teaches a rotation-angle selection unit that is used when there is a mismatch in the orientation of the image data and the orientation of the print sheet.**).

Therefore, it would have been obvious for one of ordinary skill in the art, at the time of the present invention, to modify Aihara and Cho with Tsukaba to put forth the apparatus claimed in claim 9.

The motivation simply can be to put forth a method that increases the number of successful outputs. The probability of failed print jobs is reduced, in that a method that corrects sheet mismatches are realized.

Regarding claim 11, An image forming apparatus comprising: a page memory configured to store image data for every page; (**The storage unit stated in paragraph 39 reads on this page memory**) an image processor connected to the page memory, wherein the image processor rotates the image data stored in the page memory at a specified angle; (**Paragraph 44 describes a rotation unit 117.**) a pattern replacing table configured to make pixels requiring correction when rotating the image data by the image processor and hold corrected pixel data for a matrix pixel array pattern having a pixel with the pixel subject to replacement; (**Paragraph 82 describes a method that compares the pre-rotation and post-rotation data. If there are differences in the post-rotation data, then appropriate corrections are made. The Examiner is equating the mean to hold the pattern to a mere storage, and such a storage is inherently taught in the reference. Otherwise, the comparison and correction**

step stated in the Aihara is not possible. Also note that that the original pixel data read on the noteworthy pixels stated in the claim language.)and a print engine configured to form images based on the image data of which positional relationship of pixels was corrected by the image processor. (**Figure 1 illustrates an image output device 400.**)

But Aihara fails to teach an apparatus wherein the image processor searches the image data in accord with the matrix pixel image array pattern held by the pattern replacing table out of rotary processed image data and replaces a pixel subject to replacement that is the central pixel of the image data when image data in accord with the matrix pixel image array pattern is searched.

Cho, on the other hand, teaches an apparatus wherein the image processor searches the image data in accord with the matrix pixel image array pattern held by the pattern replacing table out of rotary processed image data and replaces a pixel subject to replacement that is the central pixel of the image data when image data in accord with the matrix pixel image array pattern is searched. (**Paragraph 21 discloses a method that matches vector characteristics with previously registered data. This matching step inherently teaches the searching means stated in the claim language. Note that the matching is not possible without indexing the currently stored image. Paragraph 34 details one method wherein the center coordinates are searched and processed.**)

Therefore, it would have been obvious for one of ordinary skill in the art, at the time of the present invention, to modify Aihara with Cho to put forth the image forming

apparatus stated in claim 11 wherein a search algorithm is employed in the pixel correction process.

The motivation is to devise a step that successfully searches the coordinates of a stored pattern to seek out any abnormalities. This, in turn, would yield an efficient and accurate image processing apparatus. Also note that Aihara and Cho are combinable because both references deal with not only image processing, but they also deal with comparing currently stored patterns with previously stored patterns to detect any defects.

But Aihara and Cho are silent on a means for determining a direction of a document data whether the document data direction is a vertical long or horizontally long; means for determining a direction of a sheet contained in a sheet cassette whether the sheet direction is a vertical long or horizontally long; and image rotating means for rotating the image data when the document data direction disagrees with the sheet direction.

Tsukuba, on the other hand, teaches a means for determining a direction of a document data whether the document data direction is a vertical long or horizontally long(**Paragraph 19 teaches the ability to detect a mismatch in the orientation of the image data and the orientation of the print sheet. This, in turn, inherently teaches the means for determining a direction of the document data.**); means for determining a direction of a sheet contained in a sheet cassette whether the sheet direction is a vertical long or horizontally long(**Paragraph 19 teaches an orientation detection unit that determines the orientation of the print sheet.**); and image

rotating means for rotating the image data when the document data direction disagrees with the sheet direction(**Paragraph 19 teaches a rotation-angle selection unit that is used when there is a mismatch in the orientation of the image data and the orientation of the print sheet.**).

Therefore, it would have been obvious for one of ordinary skill in the art, at the time of the present invention, to modify Aihara and Cho with Tsukaba to put forth the apparatus claimed in claim 11.

The motivation simply can be to put forth a method that increases the number of successful outputs. The probability of failed print jobs is reduced, in that a method that corrects sheet mismatches are realized.

Regarding claim 14, Aihara further teaches an image forming apparatus according to claim 2, wherein the noteworthy pixels comprises two or more adjacent pixels. (**Paragraph 82 of the Aihara reference talks about pixels in a specific region. This concept of a group of pixels implies the existence of adjacent pixels.**)

Regarding claim 15, Aihara further teaches that the image forming rotating means rotates the noteworthy pixels comprising two or more adjacent pixels as one block. (**Paragraph 82 of the Aihara reference talks about pixels in a specific region. This region reads on the block stated in the claim language.)**

Regarding clam 16, Aihara further teaches the image forming apparatus wherein the image data searching means includes: means for selecting sequentially the noteworthy pixels. (**Paragraph 83 teaches the detection of specific regions. This**

reads on the sequential selection of the noteworthy pixel blocks.) And the Cho reference teaches means for acquiring a predetermined sized matrix image data from the image data whenever noteworthy pixels being selected by the selecting means(**Paragraph 21 teaches the method that matches characteristics with previously registered data. The previously registered data reads on the predetermined sized matrix image data**); and means for comparing between the predetermined sized matrix image data and the matrix pixel array pattern held by the corrected pattern holding means to search the presence of patterns of which white and black pixel array agree with the predetermined sized image data. (**Paragraph 21 teaches a matching step.**)

Regarding claim 20, Tsukuba further teaches the image forming apparatus according to claim 2 wherein the image rotating means rotates the image data in a rightward or leftward 90 degrees. (**Paragraph 149 teaches rotating the image 90 degrees.**)

4. Claims 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Aihara(U.S. 2004/0066969) in view of Tsukuba(U.S. 2003/0197882) and further in view of well known prior art(official notice).

Regarding claim 13, Aihara and Tsukuba teach the apparatus claimed in claim 12.

But they are silent on a detachable pattern holding means.

The Examiner takes official notice in stating that detachable holding means are well known in the art. For instance, detachable memory units are used in modular printing.

Therefore, it would have been obvious for one of ordinary skill in the art, at the time of the present invention, to modify Aihara and Tsukuba with well known prior art(official) to fully put forth the apparatus claimed in claim 13.

The motivation is that a detachable pattern holding means will create a more efficient modular image forming apparatus. This, in turn, can save storage space. It is also easier to move the image forming apparatus.

5. Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aihara(U.S. 2004/0066969) in view of Cho(U.S. 2004/0114782), Tsukuba(U.S. 2003/0197882), and well known prior art(official notice).

Regarding claim 17, the combination of Aihara, Cho, and Tsukuba teaches image forming apparatus claimed in claim 16.

But this combination fails to explicitly teach that a correction is not performed when the correction means cannot located a stored original image data.

The Examiner takes official notice in asserting that there are numerous image processors consisting of a comparing means which does not perform a correction function when the comparing means cannot locate an original image to compare a current image to.

Therefore, it would have been obvious for one of ordinary skill in the art, at the time of the present invention, to modify Aihara, Cho, and Tsukuba with well known prior

art(official notice) to fully put forth the apparatus claimed in claim 17 wherein the image correcting means does not correct the replacing subject pixels with the pixel array pattern when the image data searching means detect the image data in disaccord with the pixel array pattern.

The motivation simply is to yield an efficient device, in that memory space and other resources are not wasted when an original image cannot be located in the storage.

Regarding claim 18, the combination of Aihara, Cho, and Tsukuba teaches image forming apparatus claimed in claim 16.

But this combination fails to explicitly teach repeated operations during the selection process.

The Examiner takes official notice in asserting that there are numerous image processors that repeatedly does a function for the sake of successfully performing a job.

Therefore, it would have been obvious for one of ordinary skill in the art, at the time of the present invention, to modify Aihara, Cho, and Tsukuba with well known prior art(official notice) to fully put forth the apparatus claimed in claim 18.

The motivation simply is to yield a method that fully completes a specified job. The repeated process of selecting, acquiring, and comparing the noteworthy pixels maximizes the successful correction of all noteworthy pixels.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

6. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ASHISH K. THOMAS whose telephone number is (571)272-0631. The examiner can normally be reached on 9:00 a.m. - 5:30 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K. Moore can be reached on 571-272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/Ashish K Thomas/
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